5-year overall cost per patient was €13,900-€17,200 in Hungary, €16,300-€18,300 in Poland, €8,900-€9,600 in Serbia and €12,500-€15,700 in Slovakia (presented in ranges due to uncertainty around palliative care). Chemotherapy-associated costs accounted for 59-71% of the total, followed by primary surgical treatment (13-23%) and palliative care (4-15%). Contribution of drug costs to the overall costs varied among the countries (in Poland 29%, in Serbia 55% of total costs). **CONCLUSIONS:** Given the scarcity of OC cost studies worldwide, these findings may provide a useful source for clinicians and decision makers in understanding the economic implications of managing ovarian cancer in Central and Eastern Europe and the need for innovative therapies.

PCN51

COMPREHENSIVE INVESTIGATION OF ADVERSE EVENT (AE)-RELATED COSTS IN PATIENTS WITH METASTATIC BREAST CANCER (MBC) TREATED WITH FIRST- AND SECOND-LINE CHEMOTHERAPIES

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OBJECTIVES: To examine the incremental costs of chemotherapy-associated AEs in mBC **METHODS:** The PharMetrics Database (2000-2010) was used to identify mBC patients treated with first- or second-line taxane (paclitaxel or docetaxel) or capecitabine-based regimens, with treatment episodes (TEs) ≥30 days. Inverse probability weighting was used to balance patient characteristics between cohorts with and without AEs. Incremental costs attributable to AEs were assessed by comparing costs incurred during TEs with and without AEs and included the following components: inpatient, outpatient, emergency room, other medical service, pharmacy costs, and total health care costs. Sensitivity analyses were conducted to examine the average monthly costs in patients cohorts stratified by the number and type of AEs reported during the TEs. **RESULTS:** 3,222 women (mean age=57) received a first- and/or second-line taxane or capecitabine for mBC. Of the 2,678 1st-line patients, 69.7% received taxane and 30.3% capecitabine. AEs were commonly seen in patients treated with first-line taxane (94.6%) and capecitabine (83.7%). On average, the total monthly incremental cost associated with AEs was 38% higher ($3,547) for taxane and 9% higher ($854) for capecitabine. Inpatient and other drug costs accounted for a majority of the increased costs. Of 1,084 second-line patients, 66.0% received taxane and 34.0% with capecitabine. 94.4% of second-line taxane patients and 84% of capecitabine patients had an AE. The average total monthly incremental cost associated with AEs for taxane was $5,320 and $4,933 for capecitabine (69.5% and 82.9% higher vs. patients without AEs). Differences in pharmacy costs drove the incremental AE-related costs in taxanes users; inpatient and outpatient costs accounted for the majority of these costs in capecitabine users. Sensitivity analyses showed a clear trend of an increasing economic burden with the number of AEs. **CONCLUSIONS:** Chemotherapy-related AEs are associated with a substantial economic burden primarily explained by increased inpatient, outpatient, and pharmacy costs.

PCN52

ENGLISH HOSPITAL COSTS FOR ANAL CANCER: PRELIMINARY RESULTS FROM AN INVESTIGATION USING HOSPITAL EPISODES STATISTICS (HES)

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There is some evidence that the annual number of patients diagnosed with anal cancer in the UK is increasing. Such a rise could potentially have important health and economic consequences. **OBJECTIVES:** To estimate hospital treatment costs for anal cancer in England, based on data from the HES database, as part of a wider study investigating the total economic burden of anal cancer in the UK. **METHODS:** Inpatient admissions for anal cancer between the years 2006/07 to 2010/11 were retrospectively analysed. Data was obtained from HES, a database covering English hospital activity, with inpatient episodes aggregated into spells of care associated with a specific Healthcare Resource Group (HRG). The HRGs were linked to costs from the UK National Tariff in order to calculate the average annual and per inpatient payments for treatment of anal cancer, as per the NHS Payment by Results framework. Where necessary, costs were supplemented by expert opinion and other published cost estimates. A limited amount of HES data on outpatient consultations was also collected and analysed. **RESULTS:** In England, the average annual payments for inpatient care associated with anal cancer are estimated to total £7,754,219 (males = £2,930,360, females = £4,823,859). This translated to a mean annual cost per inpatient of £4,605 and £5,232 for males and females respectively. Outpatient costs were lower across both genders with annual payments for outpatient care estimated at £184,479 for males and £286,686 for females. This is likely to be a significant underestimate due to coverage issues with the HES outpatient dataset on account of local variation in the sources of funding for certain treatments. Further research into outpatient costs is currently ongoing. **CONCLUSIONS:** Despite the significant underestimation of the outpatient costs, these results suggest anal cancer places a significant health and economic burden on the English NHS.

PCN53

REAL WORLD MANAGEMENT AND COSTS IN METASTATIC MALIGNANT MELANOMA (MM) PATIENTS: A PILOT STUDY BASED ON AN INSTITUTIONAL PATIENT REGISTRY

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OBJECTIVES: To assess the management and associated lifetime costs in MM patients as from the diagnosis of unresectable metastatic disease until death. **METHODS:** A retrospective patient chart review was performed at the Antwerp University Hospital to obtain data on medical consumption related to the management of unresectable metastatic MM (umMM). A complete registry of all MM patients who visited the hospital between 2007 and May 2012 was compiled. Eligible for this retrospective chart review were patients with umMM with sufficient data available and who deceased before May 2012. Data on demographics, disease characteristics and management of umMM were collected. Direct costs were calculated by multiplying each item of resource use with its unit cost (2012, €) using the Belgian public health care payer's perspective (PHCP) and patient's perspective. Average (bootstrap 95%CI) overall costs per patient were calculated. **RESULTS:** Out of 148 registered MM patients, 29 were eligible and included in this chart review. The median overall survival time in all patients was 6.0 months. 86% (n=25) of patients were treated by systemic treatment(s) of which 24% (n=6) received up to 4 different treatment lines. Dacarbazine was administered in all patients as a single agent or in combination therapy. 4 patients received 1 to 4 cycles of ipilimumab treatment. 53 (43%) of the 123 hospitalizations were for chemotherapy administration. The mean overall cost per patient was €31,637 (bootstrap 95% CI:23,993-39,891), of which € 30,585 € (95%CI: 23,154-38,784) was reimbursed. The PHCP cost was driven by hospitalization costs and systemic treatments costs both representing 33% of total cost. **CONCLUSIONS:** Management of umMM result in considerable costs for the PHCP mainly driven by systemic treatment costs and hospitalization costs. It would be interesting to extend this study in a broader population.

PCN54

ECONOMIC BURDEN ASSOCIATED WITH PANCREATIC CANCER IN EUROPE

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OBJECTIVES: This review was conducted to assess the economic burden of pancreatic cancer (PC) in Europe. **METHODS:** Systematic search of Embase® and MEDLINE® databases was conducted from January 2002 to June 2012 to identify economic studies on PC in Europe. English language studies, regardless of design and intervention were included. Eligibility of trials was assessed by two reviewers with any discrepancy reconciled by a third, independent reviewer. **RESULTS:** Of the 97 retrieved citations, seven met pre-defined inclusion criteria. Four studies were cost-analyses while other three were cost-minimisation, cost-utility, and cost-benefit analysis, respectively. In Europe, the predicted PC mortality varied between 6.6-8.2/100,000 men and between 4-5.7/100,000 women in 2012. In Sweden, the direct costs/patient/month associated with PC rose from €1578 in 2001 to €3103 in 2002-2005 and then to €6590 in 2009. In 2009, the major contributors of this direct cost were hospitalisations (€4670), surgery (€719), and chemotherapy (€258). The mean total cost of illness/patient for PC in Germany was €31,375 (cost years 2000-2003), where direct cost was responsible for 90% of this total value and the remaining 10% was contributed by indirect costs including loss of productivity due to days-off work. In 2009, the estimated cost/patient associated with loss of productivity due to absenteeism was €6077 in Sweden. Upon assessment of curative resection cost for PC per patient in Sweden, it was found to be about €39,000 in 2009. The mean costs per patient associated with the use of diagnosis of PC were $1925 in Switzerland (2004), $1249 in Spain (2001), and €1545 in Sweden (2001). **CONCLUSIONS:** Although limited data is available, a trend in increase of fiscal burden of PC was observed. The major contributors of this burden were surgery, hospitalisations, chemotherapy, and loss of productivity. Therapies that prevent or delay disease progression could reduce this burden.

PCN55

THE COST OF RARE DISEASES: THE EXAMPLE OF CHRONIC LYMPHOCYTIC LEUKEMIA

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OBJECTIVES: Chronic lymphocytic leukemia (CLL) is a slowly progressing but mortal disease that imposes a high economic burden on sickness funds and society. The objective of this study is to analyze and compare the direct and indirect costs of CLL in Germany from the perspective of both sickness funds and society, and to analyze the burden of the disease. **METHODS:** Using a database of 7.6 million enrolled individuals, we identified 4198 CLL patients in 2007 and 2008. Costs attributable to CLL were estimated using a case-control design, with a control group of 150 individuals randomly drawn by age and sex for each CLL observation. We used GEE and count data models to test for differences in costs and health care utilization. **RESULTS:** The cost attributable to CLL per prevalent case amounts to €4946 from the payer's perspective, and €7910 from that of society. Inpatient stays and pharmaceutical consumption are the main cost drivers of the disease. The burden of disease in Germany is estimated to be approximately €201 million per year from the sickness fund perspective (€322 million from the societal perspective). **CONCLUSIONS:** Compared with common diseases such as diabetes or COPD, the economic burden of CLL is considerably lower. However, the cost of treatment per case is about twice as high as for these common diseases, even though treatment is performed in later stages only. Owing to new health care technologies, an ageing population, and an increasing incidence, it is likely that the burden of the disease will continue to grow.

PCN56

PRELIMINARY RESULTS FROM A STUDY OF HOSPITAL COSTS DUE TO TREATMENT OF HEAD AND NECK CANCERS IN ENGLAND

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